AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A method of generating class models of semantically classifiable data of known classes, comprising the steps of:

for each known class:

extracting a plurality of sets of characteristic feature vectors from respective portions of a training set of semantically classifiable data of one of the known classes; and

combining the plurality of sets of characteristic features into a respective plurality of N-dimensional feature vectors specific to the known class;

wherein respective pluralities of *N*-dimensional feature vectors are thus obtained for each known class ; the method further comprising:

analysing the pluralities of *N*-dimensional feature vectors for each known class to generate a set of *M* basis vectors, each being of N-dimensions, wherein $M << N$; and

for any particular one of the known classes:

using the set of M basis vectors, mapping each *N*-dimensional feature vector relating to the particular one of the known classes into a respective *M*-dimensional feature vector; and

using the *M*-dimensional feature vectors thus obtained as the basis for or as input to train a class model of the particular one of the known classes.

2. (original) A method of identifying the semantic class of a set of semantically classifiable data, comprising the steps of:

extracting a plurality of sets of characteristic feature vectors from respective portions of the set of semantically classifiable data;

combining the plurality of sets of characteristic features into a respective plurality of *N*-dimensional feature vectors;

mapping each *N*-dimensional feature vector to a respective *M*-dimensional feature vector, using a set of *M* basis vectors previously stored, wherein $M << N$;

comparing the *M*-dimensional feature vectors with stored class models respectively corresponding to previously identified semantic classes of data; and

identifying as the semantic class that class which corresponds to the class model which most matched the *M*-dimensional feature vectors.

3. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the set of semantically classifiable data is audio data.

4. (currently amended) A method according to claims 1 ~~or 2~~, wherein the set of semantically classifiable data is visual data.

5. (currently amended) A method according to claims 1 ~~or 2~~, wherein the set of semantically classifiable data contains audio and visual data.

6. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the analysing step uses Principal Component Analysis (PCA).

7. (currently amended) A method according to ~~any of claims 1 to 5~~ claim 1, wherein the analysing step uses Kernel Discriminant Analysis (KDA).

8. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the combining step further comprises concatenating the respectively extracted characteristic features into the respective *N*-dimensional feature vectors.

9. (original) A system for generating class models of semantically classifiable data of known classes, comprising:

feature extraction means for extracting a plurality of sets of characteristic feature vectors from respective portions of a training set of semantically classifiable data of one of the known classes; and

feature combining means for combining the plurality of sets of characteristic features into a respective plurality of *N*-dimensional feature vectors specific to the known class;

the feature extraction means and the feature combining means being repeatably operable for each known class, wherein respective pluralities of *N*-dimensional feature vectors are thus obtained for each known class;

the system further comprising:

processing means arranged in operation to:

analyse the pluralities of *N*-dimensional feature vectors for each known class to generate a set of *M* basis vectors, each being of *N*-dimensions, wherein $M << N$; and

for any particular one of the known classes:

use the set of *M* basis vectors, map each *N*-dimensional feature vector relating to the particular one of the known classes into a respective *M*-dimensional feature vector; and

use the *M*-dimensional feature vectors thus obtained as the basis for or as input to train a class model of the particular one of the known classes

10. (original) A system for identifying the semantic class of a set of semantically classifiable data, comprising:

feature extraction means for extracting a plurality of sets of characteristic feature vectors from respective portions of the set of semantically classifiable data;

feature combining means for combining the plurality of sets of characteristic features into a respective plurality of N-dimensional feature vectors;

storage means for storing class models respectively corresponding to previously identified semantic classes of data; and

processing means for:

mapping each *N*-dimensional feature vector to a respective *M*-dimensional feature vector, using a set of *M* basis vectors previously generated by the third aspect of the invention, wherein $M << N$;

comparing the M-dimensional feature vectors with the stored class models; and

identifying as the semantic class that class which corresponds to the class model which most matched the *M*-dimensional feature vectors.